PE NUMBER: 0604222F

PE TITLE: Nuclear Weapons Support

	RDT&E BUDGET ITEM	JUSTI	FICATI	ON SH	EET (R	-2 Exhi	bit)		DATE	June	2001
	et activity Engineering and Manufacturing De	velopme	ent	=	UMBER AND 14222F		Weapon	s Suppo	rt		
	COST (\$ in Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	8,134	10,039	13,120	13,493	14,225	14,476	15,523	16,287	Continuing	TBD
4236	Engineering Analysis	1,236	1,226	2,134	2,120	2,139	2,169	2,690	2,998	Continuing	TBD
4807	Agent Defeat Weapons	2,750	3,928	5,485	5,588	6,088	6,087	6,340	6,539	Continuing	TBD
5708	Nuclear Weapons Support	4,148	4,885	5,501	5,785	5,998	6,220	6,493	6,750	Continuing	TBD
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

FY03-FY07: This administration has not addressed FY 2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.

(U) A. Mission Description

Provides funds for maintaining core USAF nuclear weapon system expertise. Includes in-house technical capabilities, contractual efforts, supplies and equipment, travel and salaries of the USAF Nuclear Weapons Product Support Center and the USAF Nuclear Weapons and Counterproliferation Agency civilian and military nuclear weapon and counterproliferation specialists at Kirtland Air Force Base. Provides technical and programmatic guidance for continued and improved weapons capability, interoperability, safety, surety, security, development, stockpile management and retirement, and counterproliferation assessments. Customers are: DoD (Air Force, Navy, Nuclear CINCs, Joint Staff, OSD and Defense Threat Reduction Agency [DTRA]), DOE and NATO. Supports US Strategic Command and Air Combat Command Required Operational Capability 16-71 (Peacekeeper), 12-76 (Air Launched Cruise Missile), 6-76 (B61 Strategic Bomb), 6-69 (B83 Modern Strategic Bomb), and SAC System Operational Requirements Document 13-82-III (Advanced Cruise Missile). Air Force representative for development and implementation of the Joint DoD-DOE Surety Plan, DOE Stockpile Stewardship Plan, DoD/DOE Long Range Planning Assessment and the DoD/DOE Annual Certification. These plans document nuclear weapon issues which benefit from the application of risk assessment, data collection, model development and effectiveness analysis. This work is tied to the DOE nuclear weapons development process independent of the DoD acquisition system. Weapons are continuously undergoing some form of RDT&E to assure safety, reliability and operational readiness as the DoD restructures the nation's nuclear stockpile. Therefore, USAF platforms require continuing engineering development and analysis to ensure compatibility and safety of nuclear systems. Counterproliferation efforts include identifying, evaluating and assessing current and projected counterproliferation systems operating in joint environments. Funding this element is essential to maintaining current safety and reliab

Page 1 of 20 Pages

Exhibit R-2 (PE 0604222F)

DATE RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit) June 2001 PE NUMBER AND TITLE BUDGET ACTIVITY 05 - Engineering and Manufacturing Development 0604222F Nuclear Weapons Support (U) **B. Budget Activity Justification** The USAF Nuclear Weapons Product Support Center and the USAF Nuclear Weapons and Counterproliferation Agency are responsible for all USAF nuclear weapons program management, development, systems engineering, nuclear surety engineering, engineering analyses and weapons support procedure changes. These efforts place this project in RDT&E research category/budget activity 5, Engineering and Manufacturing Development. C. Program Change Summary (\$ in Thousands) FY 2000 FY 2001 FY 2002 **Total Cost** Previous President's Budget (FY 2001 PBR) 8,397 10,133 12,745 TBD (U) Appropriated Value 8,489 10,133 Adjustments to Appropriated Value a. Congressional/General Reductions -54 b. Small Business Innovative Research -241 c. Omnibus or Other Above Threshold Reprogram -3 d. Below Threshold Reprogram -24 e. Rescissions -33 -94 Adjustments to Budget Years Since FY 2001 PBR 375 Current Budget Submit/FY 2002 PBR 13,120 **TBD** 8.134 10.039 (U)Significant Program Changes: Change in FY 2002 reflects civilian pay and non-pay inflation.

Exhibit R-2 (PE 0604222F)

	RDT&	E BUDGET ITEM	JUSTIF	ICATIO	N SHE	ET (R-	2A Exh	ibit)		DATE	June 2	2001
	ET ACTIVITY Engineering an	d Manufacturing De	velopme	ent		UMBER AND 14222F	TITLE Nuclear	Weapon	s Suppo	ort		PROJECT 4236
	COST (\$ in ⁻	Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4236	Engineering Analysi	s	1,236	1,226	2,134	2,120	2,139	2,169	2,690	2,998	Continuing	TBD
FY03 chang		stration has not addressed FY	2003-200	7 requireme	ents. All FY	7 2003-200	7 budget est	timates incl	uded in this	s book are r	notional only	and subject to
(U)	•	ion g analysis performed on con pertise unavailable through o				•	•					
(U) (U)	FY 2000 (\$ in Thouse \$95	Nuclear Aircraft System Some the US Strategic Command calibrated the WE1841 Test surveillance tests on the F-provide backup and spare provide back	d's nuclear : st Set; deve 16 (Blocks parts; recon	safe escape loped new to 30/40/50), figured and	effort; prov est procedu F-15E Suite reprogram	rided suppoures for use e 3 Rev 9, I med the nev	rt on the nu with notebo 3-52H, and w WE-1841	clear hardnook comput PA-200 aird Test Sets t	ess databaseers; suppor craft; procu to bring the	e; performe ted nuclear red two use m up to the	d aircraft so aircraft wea ed WE-1841 USAF conf	ftware analysis; pon system Test Sets to iguration.
(U)	\$811	Nuclear Weapons Program upgrading and continuing to document and supporting of Project Officer Group meetings; conducted special Phase 6.2 study, ICBM ST W87 Life Extension Program	to incorpore thanges to the tings, Annual studies of ART II con	rate data; pr the W80 and tal Certifica n stockpile	ovided tech d B61 Milit tion Assess related mat	nical recon ary Charact sment and s ters; provid	nmendations eristics (Mo pecial studi ed technica	s to update C); docume es to includ l analysis ar	B61-11 Sto nted and su le B61-11 N nd test supp	ckpile-to-T pported 8 r Aission Ana port for life	arget Seque najor nuclea alysis Worki extension op	nce (STS) r warhead ng Group otions for W80
(U)	U) \$330 Counterproliferation Assessments. Provided continued technical support for counterproliferation assessments and technical expertise in the areas of nuclear, advanced technology and conventional systems identified as possible counterforce technologies; battle damage assessment platforms; and target intelligence platforms. Supported efforts in fuzing, mission planning, counterforce technologies and intelligence requirements for developing concepts of operations and operational requirements. Provided technical and programmatic support on counterproliferation matters to the Air Force Nuclear Weapons and Counterproliferation Agency (AFNWCA) and Headquarters USAF.											
(U)	\$1,236	Total		-				-				
Pı	roject 4236				Page 3 of 2	20 Pages				Exh	ibit R-2A (F	PE 0604222F)

	RDT	&E BUDGET ITEM JUSTIFICATI	ON SHEET (R-2A Exhibit)	DATE June 2001
	GET ACTIVITY - Engineering a	and Manufacturing Development	PE NUMBER AND TITLE 0604222F Nuclear Weapons Support	PROJECT 4236
(U)	A. Mission Descri	ption Continued		
(U)	FY 2001 (\$ in Tho	usands)		
(U)	\$100	provide EOD technical support to DoD/DOE ag provide technical expertise for continued nuclea	erify nuclear weapons loading, delivery, warhead mate and dencies; provide support on the nuclear hardness database, per r weapons integration of US and non-US aircraft systems; cal ance test program, provide B61 and B83 static ejection test supports.	form aircraft software analysis; librate the WE1841 Surveillance
(U)	\$830	Nuclear Weapons Program Support. Provide ted documents; document and support all weapons so System and Knowledge Base System; conduct so modification programs; provide technical analysis.	chnical expertise to support development, fielding and update safety analyses, program actions, and agreements; update the pecial studies on stockpile related matters; conduct developments is to support life extension options for B61 strategic systems be control, long term storage, and dismantlement issues to wear	Nuclear Weapon Management nent flight testing for weapon s, W80 Phase 6.3 Assessment,
(U)	\$296	Counterproliferation Assessments. Provide con of nuclear, advanced technology and convention and target intelligence platforms. Support effort	tinued technical support for counterproliferation assessments nal systems identified as possible counterforce technologies; but in fuzing, mission planning, counterforce technologies and nal requirements. Provide technical and programmatic support	and technical expertise in the areas pattle damage assessment platforms; I intelligence requirements for
(U)	\$1,226	Total		
	_	transactions are not reflected in the FY01 program to α FY01 total is shown.	otal: BTR=-\$112K and SBIR=-\$331K. These transactions are	e not reflected in other sections of
(U)	FY 2002 (\$ in Tho			
(U)	\$105	provide EOD technical support to DoD/DOE ag	erify nuclear weapons loading, delivery, warhead mate and dencies; provide support on the nuclear hardness database; per gram, provide technical expertise for continued nuclear weaps required.	form aircraft software analysis;
(U)	\$1,717	Nuclear Weapons Program Support. Provide ted documents; document and support all weapons s System and Knowledge Base System; conduct s	chnical expertise to support development, fielding and update safety analyses, program actions, and agreements; update the pecial studies on stockpile related matters; conduct developm; provide technical analysis to support life extension options to	Nuclear Weapon Management nent flight testing for weapon
P	Project 4236		Page 4 of 20 Pages	Exhibit R-2A (PE 0604222F)

	RDT&I	E BUD	GET ITI	EM JUS	TIFICAT	ION SH	EET (R-2A	Exhib	oit)		DAT		une 2	001	
	GET ACTIVITY • Engineering an	d Manu	facturing	g Develop	ment		NUMBER 604222			eapons	Suppo	rt			PRO. 423	
(U)	A. Mission Descripti	on Contir	<u>nued</u>													
(U)	FY 2002 (\$ in Thousa			ockpile issue	es, use contro	l, long term	storage, a	nd disma	antlemen	t issues to w	eapon Le	ad Pro	ject Offic	ers and	Headqu	arters,
(U)	\$312	effort; pe	erform analy	Assessments sis of AF/DC upport these	DE proposed	alterations/r	nodificati	ons to the	e endurin	g stockpile;	lead the	develoj	pment of	new ana	lytical	
(U)	\$2,134	Total														
(U)	B. Project Change S	ummary														
(U)	C. Other Program F	unding Su	immary (\$ i FY 2000 Actual	in Thousand FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 200 Estima		2005 stimate	FY 2006 Estimate	FY 200 Estima		Cost Compl		<u>To</u>	otal Cost
(U)	Not Applicable		110000	200000	<u> </u>					250111100			<u>comp</u>			
(U)	D. Acquisition Strate Multiple small, firm fi counterproliferation as	xed price		contractors	and MIPRs t	o governme	nt labs for	technica	al analyse	es and techn	ical suppo	ort in s	afety, ope	erations	and	
(U)	E. Schedule Profile															
						1	FY 2000	4	1	<u>FY 2</u>		4	1	FY 2		,
(U) (U) (U)	Nuc Wpm Mgmt Sys - Initiate design, collection - Complete design					1	2 3	4	1	2	3	4	1	2	3	4
(U)	- Begin enhance desig	n/ data ma	nagement				*	*	*	*	X	X	X	X	X	X
(U) (U)	B61 Vibration Fly-aro B61 ALT 356 Flight T * - Completed Event	Γesting	ned Event			*	*							X	X	
Р	roject 4236					Page 5 o	f 20 Pages	.				E	Exhibit R	-2A (PE	€ 06042	222F)

	RDT&E PROG	RAM ELE	MENT/P	ROJECT C	OST BE	REAKDO	WN (R-3)		DATE	June 200)1
	GET ACTIVITY • Engineering and Mar	nufacturing	Developr	nent		ER AND TITLE 22F Nuclea	ar Weapon	ns Support			PROJECT 4236
(U)	A. Project Cost Breakdown	(\$ in Thousand	<u>ls</u>)				EV ′	2000	FY 20	01	FY 2002
(U)	Contractor Engineering Supp	ort						236	$\frac{1120}{1,22}$		2,134
(U)	Total						1,	236	1,22	26	2,134
(U)	B. Budget Acquisition Histo	ry and Plannin	g Informatio	n (\$ in Thousand	<u>s)</u>						
(U)	Performing Organizations:										
	Contractor or	Contract									
	Government	Method/Type	Award or	Performing	Project						
	Performing	or Funding	Obligation	<u>Activity</u>	<u>Office</u>	Total Prior	Budget	Budget	Budget	Budget to	<u>Total</u>
	Activity	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	to FY 2000	FY 2000	FY 2001	FY 2002	<u>Complete</u>	<u>Program</u>
	Product Development Organi	zations									
	Miscellaneous	MIPR/FFP	2Q FY01	N/A	N/A		1,026	976	1,834	Continuing	TBD
	- Orion Intl, Albuquerque,										
	NM										
	- ITT Systems, Colorado										
	Springs, CO										
	- ANSER, Arlington, VA										
	- Albuquerque Logistics,										
	Albuquerque, NM										
	Support and Management Organic	ganizations									
	Test and Evaluation Organiza	tions									
	AFMC Test Centers	MIPR	1Q FY01				210	250	300	Continuing	TBD
(U)	Government Furnished Pro	perty:									
		<u>Contract</u>									
		Method/Type	Award or								
	<u>Item</u>	or Funding	Obligation	<u>Delivery</u>		Total Prior	Budget	Budget	Budget	Budget to	<u>Total</u>
	Description	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		to FY 2000	FY 2000	FY 2001	FY 2002	Complete	<u>Program</u>
	Product Development Propert None	¥									
i p	roject 4236			Page	6 of 20 Pag	ges			Exhib	oit R-3 (PE ()604222F)

RDT&E PROGRAM ELEMENT/PROJEC	T COST BREAKDO	WN (R-3))	DATE	June 2001	<u> </u>
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development	PE NUMBER AND TITLE 0604222F Nuclea	ar Weapor	ns Suppor	t		PROJECT 1236
(U) Government Furnished Property Continued: Support and Management Property None Test and Evaluation Property None Subtotals Subtotal Product Development Subtotal Support and Management Subtotal Test and Evaluation Total Project	Total Prior to FY 2000	Budget FY 2000 1,026 210 1,236	Budget FY 2001 976 250 1,226	Budget FY 2002 1,834 300 2,134	Budget to Complete TBD TBD TBD	Tota Progra TBI TBI
Project 4236	Page 7 of 20 Pages			Exhib	it R-3 (PE 06	04222F)

	RDT8	RE BUDGET ITEM	JUSTIF	ICATIO	N SHE	ET (R-	2A Exh	ibit)		DATE	June	2001
	ET ACTIVITY Engineering a	nd Manufacturing De	velopme	ent		UMBER AND 4222F		Weapon	s Suppo	ort		PROJECT 4807
	COST (\$ i	n Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4807	Agent Defeat Wea	apons	2,750	3,928	5,485	5,588	6,088	6,087	6,340	6,539	Continuing	TBD
FY03		istration has not addressed FY	2003-200	7 requireme	ents. All FY	2003-200	budget est	imates incl	uded in this	book are n	otional only	and subject to
(U)		otion analyses for the Agent Defeat activities (beginning in FY20		ADW) Phase	e 0, Concep	t Exploratio	on, System l	Program Of	fice docum	entation an	d Phase I, P	rogram Definition
(U) (U)	FY 2000 (\$ in Thou \$1,800	Competed AoA Phase 0 an Release Model (ARM), Int into an integrated analytica Verification and Accredita tools. Provided expanded of assessments.	ternal Disperal code - Sintient (VV&)	ersion and V mulated En A) of the in	Venting (ID) vironment a dividual co	V) model, I and Respons des and mod	Empirical Lo e Program dels used du	ethality Mo Execution l uring Phase	del (ELM) Nesting Too 0 for incor	and the Horol (SERPEN poration in	t Effluent R NT); and init USAF/DoD	ise Model (HER) tial Validation, target planning
(U)	\$250	DoD pre-Phase I and/or Do approaches, and/or parallel										tual designs,
(U)	\$700	Technical support for trans Operational Requirements Control, Computers, Comr	itioning the Document	e ADW Pha (ORD); Te	se 0 approv st & Evalua	ed recomm tion Master	endations to Plan (TEM	o the Phase IP); Capsto	I effort. In ne Requirer	cluded initi nents Docu	al developn ment (CRD	
(U)	\$2,750	Total				`	,,	1				
(U) (U) (U)	FY 2001 (\$ in Thou \$2,028 \$1,900	nsands) Perform Phase 0 Risk reducengagement, weapon-targecollateral damage estimate SPO Efforts. Standup of the mandatory documentation System Engineering Master	t analytical s and new a ne ADW Sy preparation	assumption alternative ease stem Programmer and assess	ns, campaig engineering ram Office (ments to ind	n ROE's, co uncertaintic (SPO) and a clude: the R	oncept of opes. ctivities for lequest for l	erations an Milestone Proposal (R	d input assu I decision a FP) - SPO,	amptions, in and new pro ORD - HQ	ntelligence u ogram start. ACC/SPO,	Includes TEMP - SPO,
Р	roject 4807				Page 8 of 2	0 Pages				Exh	ibit R-2A (F	PE 0604222F)

	RDT&E BUDGET ITEM JUSTIFICA	TION SHEET (R-2A Exhibit)	DATE June 2001
	BET ACTIVITY Engineering and Manufacturing Development	PE NUMBER AND TITLE 0604222F Nuclear Weapons Support	PROJECT 4807
(U)	A. Mission Description Continued		
(U)	FY 2001 (\$ in Thousands) Continued (LCC) Estimates and Program Milestone I ac	equisition decision review requirements.	
(U)	\$3,928 Total The following net transactions are not reflected in the FY01 program the R-docs where an FY01 total is shown.	m total: BTR=-\$112K and SBIR=-\$331K. These transactions a	re not reflected in other sections of
(U) (U)	perform VV&A of the Simulated Environme	OC approved ADW Analysis of Alternatives and the Phase I and ent and Response Execution Nesting Tool (SERPENT) code for	•
(U)	and Risk Reduction efforts to include planning develop analytical weaponeering tools to sup	support to AF NWCA(CP) and the ADW Systems Program Offing and performing Phase I research, development and assessment technology employment; provide support for VV&A of Ph	nts of AFROC approved concepts;
(U)	-	DW development and assessments of concept designs, approach assessments; continue development and evaluation of model uncertification.	
(U)	\$5,485 Total		
(U)	B. Project Change Summary Delays in completion of campaign assessments and policy definition	on required a slip of Milestone I decision and Phase I start by ap	proximately one year.
(U)	C. Other Program Funding Summary (\$ in Thousands) FY 2000 FY 2001 FY 2002 Actual Estimate Estimate		
(U)	Not Applicable		,
(U)	D. Acquisition Strategy ADW Phase 0/I activities are using firm/fixed price contracts and M	IIPRs to government labs for advanced analyses and development	nt of selected Agent Defeat concepts.
(U)	E. Schedule Profile	EV 2000 EV 2001	EV 2002
P	roject 4807	<u>FY 2000</u> <u>FY 2001</u> Page 9 of 20 Pages	<u>FY 2002</u> Exhibit R-2A (PE 0604222F)

RDT&E	BUDGET ITEM JUSTIFICAT	ΓΙΟΝ	SHEE	T (R-	-2A Ex	chibit)		DAT		June 2	001	
BUDGET ACTIVITY 05 - Engineering and I	Manufacturing Development				ID TITLE Nuclea	ar Wea	pons	Suppo	ort			PROJ 480	
(U) E. Schedule Profile Con		1	FY 2	<u>2000</u>			<u>FY 2</u>	<u>2001</u>		1	<u>FY 2</u>		4
(U) End ADW Phase 0 AoA (U) Begin ADW SPO Docume (U) End ADW SPO Docume (U) ADW Milestone I (U) Begin ADW Phase I * - Completed Event X	ntation	1	2	3	*	1	2	3	4 X	1	2 X	3 X X	4
Project 4807		Page	10 of 20	Pages					E	Exhibit F	R-2A (PI	≣ 06042	22F)

	RDT&E PROG	RAM ELE	MENT/P	ROJECT C	OST BE	REAKDO	WN (R-3)		DATE	June 200)1
	BET ACTIVITY Engineering and Mar	nufacturing	Developn	nent		er and title 2 2F Nucle	ar Weapor	ns Support			PROJECT 4807
(U)	A. Project Cost Breakdown	(\$ in Thousand	ls)								
(U)	Hardware Development							2000 725	FY 20 1,5		<u>FY 2002</u> 3,270
(U)	Software Development							.000	1,3		1,050
(U)	Program Management Suppo	rt						800	80		1,050
(U)	Miscellaneous							225	22		115
(U)	Total							,750	3,92		5,485
(U)	B. Budget Acquisition Histo	ry and Plannin	g Informatio	on (\$ in Thousands	<u>s)</u>						
(U)	Performing Organizations:										
	Contractor or	Contract									
	Government	Method/Type	Award or	Performing	Project						
	Performing	or Funding	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	Total Prior	<u>Budget</u>	Budget	<u>Budget</u>	Budget to	
	Activity	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	to FY 2000	FY 2000	FY 2001	FY 2002	Complete	<u>Program</u>
	Product Development Organia		4.0 ======	27/1						~	
	Miscellaneous	MIPR/FFP	1Q FY00	N/A	N/A		2,450	3,628	4,585	Continuing	TBD
	- ITT Systems, Colorado										
	Springs, CO										
	- Orion Int'l, Albuquerque, NM										
	- AAC/WMX, Eglin AFB, Fl	ſ									
	- DOE National Labs	L									
	Support and Management Org	panizations									
	Orion Int'l, Albuquerque, NM		1Q FY00				300	300	900	Continuing	TBD
	Test and Evaluation Organiza										
(U)	Government Furnished Pro	perty:									
		Contract									
		Method/Type	Award or								
	<u>Item</u>	or Funding	Obligation	<u>Delivery</u>		Total Prior	Budget	Budget	<u>Budget</u>	Budget to	
	<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		to FY 2000	FY 2000	FY 2001	FY 2002	Complete	<u>Program</u>
Р	roject 4807			Page	11 of 20 Pa	iges			Exhib	oit R-3 (PE (0604222F)

RDT&E PROGR	RAM ELEN	/IENT/P	ROJECT	COST BE	REAKDO	WN (R-3)		DATE	June 2001	
BUDGET ACTIVITY 05 - Engineering and Manu	ıfacturing D	Developn	nent		ER AND TITLE 2 2F Nuclea	ır Weapon	s Support	t		ROJECT 8 07
Item or Description V Product Development Property None Support and Management Property None Test and Evaluation Property	Contract Method/Type A or Funding C Vehicle I	Award or Obligation Oate	<u>Delivery</u> <u>Date</u>		Total Prior to FY 2000	Budget FY 2000	Budget FY 2001	Budget FY 2002	Budget to Complete	<u>Total</u> <u>Program</u>
None Subtotals Subtotal Product Development Subtotal Support and Manageme Subtotal Test and Evaluation Total Project	ent				Total Prior to FY 2000	Budget FY 2000 2,450 300 2,750	Budget FY 2001 3,628 300 3,928	Budget FY 2002 4,585 900 5,485	Budget to Complete TBD TBD TBD	Total Program TBD TBD TBD
Project 4807			1	Page 12 of 20 Pa	ges			Exhib	it R-3 (PE 06	04222F)

	RDT&	E BUDGET ITEM	JUSTIF	ICATIO	ON SHE	ET (R-	2A Exh	ibit)		DATE	June 2	2001
	ET ACTIVITY Engineering ar	nd Manufacturing De	velopme	ent		UMBER AND 14222F		Weapon	s Suppo	ort		PROJECT 5708
	COST (\$ in	Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
5708	Nuclear Weapons	Support	4,148	4,885	5,501	5,785	5,998	6,220	6,493	6,750	Continuing	TBD
FY03 chang		stration has not addressed FY	2003-200	7 requireme	ents. All FY	7 2003-200	7 budget est	timates incl	uded in this	s book are n	otional only	and subject to
(U)		tion clear Weapons Product Suppo Mexico providing technical a					-		-			
(U) (U)	FY 2000 (\$ in Thous \$1,160) \$760	Nuclear Aircraft System Statechnical advisors and the Areview; provided technical Groups (POGs); issued nuclear Groups (POGs); issued nuclear Groups (POGs); issued nuclear Groups and are standardization test, development and communities, development and communities, development and technical support Armament Support Tester Orders resulting from system content conferences; and policies are system modifications and usystem modifications, inclusive Revision, Simulated Electric Equipment and Procedures Program, Abbott Power Supposed in the system of the system	AFMC votical support received are compared tests on the control on and propartibility entert for modification (COAST) from and wear ovided EC Missile (ICO apgrade proparting Guide onic Launce, Propulsio pply Repla	ang member equired by Natibility certifies F-16 (Blurement of the F-16 ingineering of the first poor aircraft in the poor aircraft in t	for the B-5 NWSSG act diffication states and states and development and are/softwared l support to sort. Provides formed independent Program Equipment Program Minuteman	ion items; ratement for (50), F-15E nagement sy of nuclear arent of Compon system e changes; c DoD/DOE ed nuclear sependent nugram Singlement and Prom Modified a III Mk 12/	Nuclear We nanaged the F-16A/B/C Suite 3 Revestems for national recording to the stems of the st	eapon Syste e F-15E, B- /D, B-52H, /9, B-52H, nuclear weap ems ejector : ization Lev revisions, of nnical Orde analyses for essor Confi ystem Engi gram Constary System T	m Safety G 52H, F-16, B-2A, and and PA-20 pons comm racks and e el Tester (C changes and r review, va to ICBM p or nuclear s guration, O neering Levants Tape and est Set (RS	PA-200, and F-15E/B61 of aircraft; so and and conjector rack of COLT) and didation/verogram officafety design perational of the Evaluation of Minuten (TS) Energy	SSG) Operated B-2A Processor of B-2A Processor o	ional Safety ject Officers nuclear aircraft sign, led support for provided design -Level apon Technical and technical ors for weapon on of weapon gram (OGP) rection Team onal Targeting ower Supply, and
Pı	roject 5708	Replacement Igniter Circui approval of Nuclear Surety		atements fo		difications;			•	ange Meetir	ngs for basel	

	RDT&	E BUDGET ITEM JUSTIFICATION	ON SHEET (R-2A Exhibit)	DATE June 2001
	GET ACTIVITY - Engineering an	d Manufacturing Development	PE NUMBER AND TITLE 0604222F Nuclear Weapons Support	PROJECT 5708
(U)	A. Mission Descript	ion Continued		
(U)	FY 2000 (\$ in Thous	surety requirements for ICBM Launch Facility R Equipment Containing Integrated Processors and Two-Person Control/guarding requirements the	emote Video Assessment; provided recommendation for Inter Recording Devices; conducted an independent Technical Nu Airborne Launch Control System (ALCS) at dispersed location Network Installation; and provided member to the ICBM Nu	nclear Safety Analysis of ons; provided certification
(U)	\$727	Nuclear Weapons/Systems Assessments. Conductaired/managed the Safety Subgroup of the B61 Shelters in USAFE, continued application of joint evaluated safety implications of modifications of	cted safety assessment of W62 warhead maintenance operation. Project Officers Group, supported lightning characterization at DoD/DOE nuclear surety assessment methodology to abnore the Kirtland Underground Munitions and Maintenance Storages; and provided technical advisors on nuclear weapon design and process weapon system.	rmal nuclear environment analyses; age Complex, conducted fault tree
(U)	\$1,110	Nuclear Weapons Program Support. Continuing mission analysis and compatibility studies; support Radar testing, flight testing of B61 modifications environmental and intrinsic radiation studies; corfor B61, B83, W80 and ICBM warheads including	as the Nuclear Weapons Center of Expertise. Accomplished orted USAF nuclear weapon stockpile activities including constand full certification of B61-11, Annual Certification Report attinued to develop, plan, analyze, schedule and execute nuclearing completion of W80 6.2 study; continued support to USAF sons stockpile; supported validation and verification of the light	inpletion of B83 and B61 Common its, weapon use control analyses, and ar weapon life extension programs b, DoD, and other agencies on all
(U)	\$391	Counterproliferation Assessments. Provided tech guidance and technical expertise in the evaluation	nnical guidance, analysis and support for the ADW Phase 0/I on of nuclear, conventional and advanced weapon technologies used and future counterproliferation efforts of interest to the U	s for CP programs; provided
(U)	\$4,148	Total	•	
(U) (U)	FY 2001 (\$ in Thous \$1,303	Nuclear Aircraft System Support. Continue FY 2 update/expand nuclear hardness database; conduc AFMC voting member for the Prime Nuclear Air	2000 level of effort: support the US Strategic Command's nucct nuclear aircraft weapon system surveillance test programs; lift Forces (PNAF) and Strike Aircraft NWSSG Operational of stores management systems for nuclear weapons command	provide technical advisors and the Safety Reviews; support design,
P	roject 5708		Page 14 of 20 Pages	Exhibit R-2A (PE 0604222F)

	RDT	&E BUDGET ITEM JUSTIFICATION	ON SHEET (R-2A Exhibit)	DATE June 2001
	T ACTIVITY Engineering	and Manufacturing Development	PE NUMBER AND TITLE 0604222F Nuclear Weapons Support	PROJECT 5708
(U) <u>A</u>	A. Mission Descr	iption Continued		
(U) E	FY 2001 (\$ in The	ejector rack cartridges, aircraft nuclear weapon to nuclear surety and compatibility design criteria, aircraft weapon systems; manage the B-52H, F-1 safety design certification of aircraft nuclear weat content conferences; provide revision, changes, to through the Joint Nuclear Weapons Publication States affected by systems hardware/software ch	analysis for certification of C-130J PNAF capability; continent sets and support equipment and development of the commistandards, specifications, and related requirements document .5E, B-2A, F-16, and PA-200 POGs; perform independent or upon system modifications; chair Technical Order review, varipdates and publication/distribution to general nuclear weapon system (JNWPS); furnish specific guidance to MAJCOMs or langes; provide all nuclear-capable MAJCOMs with administrations.	non COLT/COAST test set; provide is for all USAF nuclear capable ngineering evaluations for nuclear lidation/verification, and technical ons technical guidance supported in Explosive Ordnance Disposal and
(U) \$	\$995	specifications, and related requirements document provide nuclear surety design guidance to ICBM independent nuclear surety analyses for nuclear sto HQ AFSC/SEW and the ICBM SPO; provide support additional NWSSG activities for Two-Pe support Peacekeeper Weapon System nuclear surety.	poort. Continue FY 2000 level of effort: provide nuclear suret atts for all USAF ground-launched missile systems; provide launched missile systems; provide launched program office/contractors for weapon system modification safety design certification of weapon system modifications; particularly technical support required by NWSSG action items; conductors of Control requirements the Airborne Launch Control System activities (either life extension programs or deactivation thorized launch studies, and special security working groups.	ogistics sustainment support; s and upgrade programs, perform provide nuclear certification support an independent safety analysis to stem (ALCS) at disperse locations; activities); and provide member to
(U) \$	\$895	Nuclear Weapons/Systems Assessments. Continuethodology to abnormal nuclear environment analyses of nuclear weapons and weapon system independent Technical Nuclear Safety Analysis of the control of the	nue FY 2000 level of effort: continue application of joint DoI nalyses; chair/manage the Safety Subgroup of the B61 Projes; conduct safety assessment of warhead maintenance operator of Nuclear Weapons Depot Maintenance and Storage Operatitions and Maintenance Storage Complex; and provide other	D/DOE nuclear surety assessment ct Officers Group; conduct fault tree tion in USAF facilities; conduct an ions; evaluate safety implications of
	\$1,140	Nuclear Weapons Program Support. Continue F Accomplish nuclear weapon safety, reliability, n weapon use control analyses, and environmental weapon life extension programs for B61, B83, V USAF, DoD and other agencies in all facets of the	Y 2000 level of effort with strong emphasis as the Nuclear V hission analysis and compatibility studies; support USAF nuclear dintrinsic radiation studies; continue to develop, plan, and V80 and ICBM warheads including Phase 6.3 request for W8 are nuclear arsenal.	Veapons Center of Expertise. clear weapon stockpile activities, alyze, schedule and execute nuclear BO program; and continue support to
(U) \$	\$552	Counterproliferation Assessments. Continue FY	2000 level of effort: provide technical guidance, analysis an	nd support for the ADW Phase I
Pro	ject 5708		Page 15 of 20 Pages	Exhibit R-2A (PE 0604222F)

DATE RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) June 2001 PE NUMBER AND TITLE BUDGET ACTIVITY **PROJECT** 0604222F Nuclear Weapons Support 05 - Engineering and Manufacturing Development 5708 **A. Mission Description Continued (U)** FY 2001 (\$ in Thousands) Continued (U)effort and counterproliferation (CP) related Intelligence, Surveillance & Reconnaissance (ISR) efforts; provide program guidance, analysis and expertise in the evaluation of nuclear, conventional and advanced weapon technologies and CP related ISR and Battle-Damage-Assessment (BDA) technologies. \$4,885 Total The following net transactions are not reflected in the FY01 program total: BTR=-\$112K and SBIR=-\$331K. These transactions are not reflected in other sections of the R-docs where an FY01 total is shown. FY 2002 (\$ in Thousands) \$1.395 (II)Nuclear Aircraft System Support. Continue FY 2001 level of effort: support the US Strategic Command's nuclear safe escape effort; update/expand nuclear hardness database; conduct nuclear aircraft weapon system surveillance test programs; provide technical support required by NWSSG action items; provide technical support for the B-52H and Long-term Storage OSRs and the NWSSG Special Safety Study for the C-130J aircraft; complete independent technical nuclear safety analysis for certification of the C-130J aircraft; continue support for certification of ejector rack cartridges, aircraft nuclear weapon test sets and support equipment, and development of the common COLT/COAST test set; provide nuclear surety and compatibility design criteria, standards, specifications, and related requirements documents for all USAF nuclear capable aircraft weapon systems; manage the B-52H, F-15E, B-2A, F-16, and PA-200 POGs; perform independent engineering evaluations for nuclear safety design certification of nuclear weapon system modifications and nuclear weapon compatibility certification; chair Technical Order review, validation/verification, and technical content conferences; provide revision, changes, updates and publication/distribution to general nuclear weapons technical guidance supported through the JNWPS; furnish specific guidance to MAJCOMs on Explosive Ordnance Disposal and issues affected by systems hardware/software changes; furnish all nuclear-capable MAJCOMs with administrative/technical oversight and review of the UR system. \$1,120 Nuclear Ground-Launched Missile (ICBM) Support. Continue FY 2001 level of effort: provide nuclear surety design criteria, standards, specifications, and related requirements documents for all USAF ground-launched missile systems; provide nuclear surety design guidance to ICBM program office/contractors for weapon system modifications and upgrade programs, perform independent nuclear surety analyses for nuclear safety design certification of weapon system modifications; provide nuclear certification support to HQ AFSC/SEW and the ICBM SPO; provide technical support required by NWSSG action items; support Peacekeeper Weapon System nuclear surety activities (either life extension programs or deactivation activities); and provide member to the ICBM Nuclear Surety Working Group, unauthorized launch studies, and special security working groups. (U)\$930 Nuclear Weapons/Systems Assessments. Continue FY 2001 level of effort: continue application of joint DoD/DOE nuclear surety assessment Project 5708 Page 16 of 20 Pages Exhibit R-2A (PE 0604222F)

	RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) DATE June 2001											
	GET ACTIVITY - Engineering an	d Manufacturing	, Dovolon	mont		NUMBER AND		Veapons (Support		PROJECT 5708	
(U)	A. Mission Descripti		Develop	mem	100	U4ZZZF I	ucieai v	veapons (зиррогі		3700	
(-)	-											
(U)	methodology to abnormal nuclear environment analyses; chair/manage the Safety Subgroup of the B61 Project Officers Group; conduct safety assessment of warhead maintenance operation in AF facilities; provide technical advisors and the AFMC voting member Nuclear Weapons Depot Maintenance and Storage Operations NWSSG Special Safety Study; conduct fault tree analyses of nuclear weapons and weapon systems; evaluate safety implications of modifications of the Kirtland Underground Munitions and Maintenance Storage Complex; and provide other assessments as required.											
(U)	\$1,339	Nuclear Weapons Program Support. Continue FY 2001 level of effort: accomplish nuclear weapon safety, reliability, mission analysis and compatibility studies; support USAF nuclear weapon stockpile activities, weapon use control analyses, and environmental and intrinsic radiation studies; continue to develop, plan, analyze, schedule and execute nuclear weapon life extension programs for B61, B83, W80 and ICBM warheads; and continue support to USAF, DoD and other agencies in all facets of the nuclear arsenal.										
(U)	\$717	Counterproliferation Assessments. Continue FY 2001 level of effort: provide technical guidance, analysis and support for the ADW Phase 0 effort and counterproliferation (CP) related Intelligence, Surveillance & Reconnaissance (ISR) efforts; provide program guidance, analysis and expertise in the evaluation of nuclear, conventional and advanced weapon technologies and CP related ISR and Battle-Damage-Assessment (BDA) technologies; lead DoD/DOE Phase 6.2/6.2A HDBT effort.										
(U)	\$5,501	Total										
(U)	B. Project Change S	<u>ummary</u>										
(U)	C. Other Program F	•										
		FY 2000	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost	
(U)	Not Applicable	<u>Actual</u>	Estimate	Estimate	Estimate	Estillate	Estillate	Estillate	Estillate	Complete		
(U)	U) Not Applicable											
P	roject 5708				Page 17 of	20 Pages				Exhibit R-2A (P	E 0604222F)	

	RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)										June 2001			
	GET ACTIVITY - Engineering and Manufacturing Development		PE NUMBER AND TITLE 0604222F Nuclear Weapons Support					ort	PROJEC : 5708					
	E. Schedule Profile			2000				2001			<u>FY 2</u>			
(U) (U) (U) (U)	B61 Vibration Fly-Around Tests B61-11 Design Review and Acceptance Group (DRAAG) B61 ALT 357 Phase 6.2 Study Start B61 ALT 357 Phase 6.2 Study Complete Complete W80 Life Extension 6.2 Study W80 Life Extention Phase 6.3 Start	1 *	2 * *	3	*	1 *	2	3	4	1	2	3 X	4	
(U) (U)	HDBT Phase 6.2 Study Start Annual Certification W87 Life Extension Program DRAAG * - Completed Event X - Planned Event			*		*		*			X	X		
F	Project 5708	Page	e 18 of 20	Pages						Exhib <u>i</u> t	R-2A (PI	≣ 06042	22F)_	

	RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)									June 2001		
	ET ACTIVITY Engineering and Ma	nent		er and title 2 2F Nucle a	ar Weapor	ns Support			PROJECT 5708			
(U)	A. Project Cost Breakdown	ı (\$ in Thousand	ls)									
	·						<u>FY 2</u>	<u> 2000</u>	FY 20	<u>01</u>	FY 2002	
(U)	Program Management Perso	onnel						245	25	50	255	
(U)	Research Personnel						2,	,950	3,22	20	3,350	
(U)	Travel							300	30		380	
(U)	Training Development							100	11		120	
(U)	Research Support Equipmer	nt Acquisition						200	20		200	
	Contract Services Support							245	25		270	
` ′	Miscellaneous							108	55		926	
(U)	Total						4,	,148	4,88	35	5,501	
(U)	B. Budget Acquisition Histo	ory and Plannin	g Informatio	on (\$ in Thousand	<u>s</u>)							
(U)	Performing Organizations:											
, ,	Contractor or	Contract										
	Government	Method/Type	Award or	Performing	Project							
	Performing	or Funding	Obligation	Activity	Office	Total Prior	Budget	Budget	Budget	Budget to	<u>Total</u>	
	Activity	Vehicle	<u>Date</u>	EAC	<u>EAC</u>	to FY 2000	FY 2000	FY 2001	FY 2002	Complete	<u>Program</u>	
	Product Development Organi	izations										
	AAC/WN (NWPSC)	N/A	N/A	N/A	N/A		2,483	2,985	3,245	Continuing	TBD	
	AFNWCA	N/A	N/A	N/A	N/A		1,420	1,650	1,986	Continuing	TBD	
	Support and Management Or	ganizations										
	GTE Govt Serv Corp,	FFP	1Q FY01				245	250	270	Continuing	TBD	
	Needham Heights, MA											
	Test and Evaluation Organiza	<u>ations</u>										
	None											
(U)	Government Furnished Pro	operty:										
		Contract										
		Method/Type	Award or									
	<u>Item</u>	or Funding	Obligation	<u>Delivery</u>		Total Prior	Budget	Budget	<u>Budget</u>	Budget to	<u>Total</u>	
	Description	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		to FY 2000	FY 2000	<u>FY 2001</u>	FY 2002	Complete	<u>Program</u>	
Pı	roject 5708			Page	19 of 20 Pa	nges			Exhib	oit R-3 (PE ()604222F)	

	RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)									ATE June 2001		
	GET ACTIVITY - Engineering and Mar	nufacturing	Developr	nent		er and title 2 2F Nuclea	r Weapon	s Support			ROJECT 708	
(U)	Item Description Product Development Propert None Support and Management Pro None Test and Evaluation Property None Subtotals Subtotal Product Developmer Subtotal Support and Manage Subtotal Test and Evaluation Total Project	perty Continue Contract Method/Type or Funding Vehicle Ty perty		Delivery Date		Total Prior to FY 2000	Budget FY 2000 Budget FY 2000 3,903 245 4,148	Budget FY 2001 Budget FY 2001 4,635 250 4,885	Budget FY 2002 Budget FY 2002 5,231 270 5,501	Budget to Complete TBD TBD TBD	Total Program TBD TBD TBD	
F	roject 5708			I	Page 20 of 20 Pa	nges			Exhib	it R-3 (PE 06	04222F)	